Peer Review File
Article information: https://dx.doi.org/10.21037/gs-23-51

Review Comments-reviewer A

1) First, the clinical research design of this study is a diagnostic test, not a prospective study. The authors need to revise the title.

A: The title has been changed to a diagnostic experiment.

2) Second, the abstract needs some revisions. The background did not describe the limitations of US, CEUS, or SWE alone and why there is a clinical need to combine them. The methods did not describe the inclusion of subjects, and how two or three of the three methods were combined, as well as the statistical methods for comparing AUC values. The results did not describe the clinical characteristics of the study sample and did not report the sensitivity and specificity. Accurate P values should be reported.

A：The abstract has been revised. The background is supplemented as requested and is found on page 1, lines 32 to 34. The methodology is updated as requested and appears on page 2, lines 5-7, 11-14. The results are revised as requested and appear on page 2, lines 15-22.

3) Third, the introduction of the main text needs to explain the clinical needs for the combination of two or three of these approaches: whether and how the combination can improve the diagnostic accuracy. The other consideration is the feasibility in real-world clinical practice and my concern is the expensive medical cost for the screening and the limited improvement in the diagnostic accuracy, which is not cost-effective.

A：The clinical needs for the combination of two or three of these approaches are supplemented in the introduction section of the text, as shown on pages 4, line 31 to pages 5, line 4. As for the feasibility of practical clinical practice, US, CEUS and SWE are all real-time dynamic scanning, which can judge the patient's condition relatively quickly, and the diagnostic accuracy is not significantly different from MRI in a number of studies.

4) Fourth, in the methodology of the main text, please correctly describe the clinical research design, sample size estimation, and the gold diagnoses of benign and malignant tumors. In statistics, please describe the determination of cut-off values of the three diagnostic methods, how the two or three methods were combined, the

calculation of sensitivity and specificity, statistical methods for comparing the AUC values, and ensure P<0.05 is two-sided.

A: In the text methodology, clinical study design is shown in Figure 1. The sample size was estimated using PASS software. The golden diagnosis of benign and malignant tumors is a pathological finding on page 5, lines 17-19. In terms of statistics, the determination of the critical values of three diagnostic methods is seen in line 16-17 of page 7, the combination of two or three diagnostic methods is seen in line 15-16 of page 7, the calculation of sensitivity and specificity is seen in line 18-19 of page 7, and the statistical method of comparing AUC values is seen in line 19-20 of page 7, and P<0.05 is double-sided.

5) Finally, please consider to cite the below related paper: He H, Wu X, Jiang M, Xu Z, Zhang X, Pan J, Fu X, Luo Y, Chen J. Diagnostic accuracy of contrast-enhanced ultrasound synchronized with shear wave elastography in the differential diagnosis of benign and malignant breast lesions: a diagnostic test. Gland Surg 2023;12(1):54-66. doi: 10.21037/gs-22-684.

A: The document is cited at citation 27.

Review Comments-reviewer B

1. Reporting Checklist

The ethical approval ID is not the registration number, please fill N/A if it's not applicable.

OTHER INFORMATION				
	28	Registration number and name of registry	Page 7/line 146-147	METHODS/paragraph

A: It has been filled N/A.

2. Figure 1

a) Please provide an editable version of the flow chart (figure 1) in DOC/PPT.

A: The figure 1 is attached.

b) Please check the date, the figure should be the same with the main text.

14 **##Baseline clinical data**

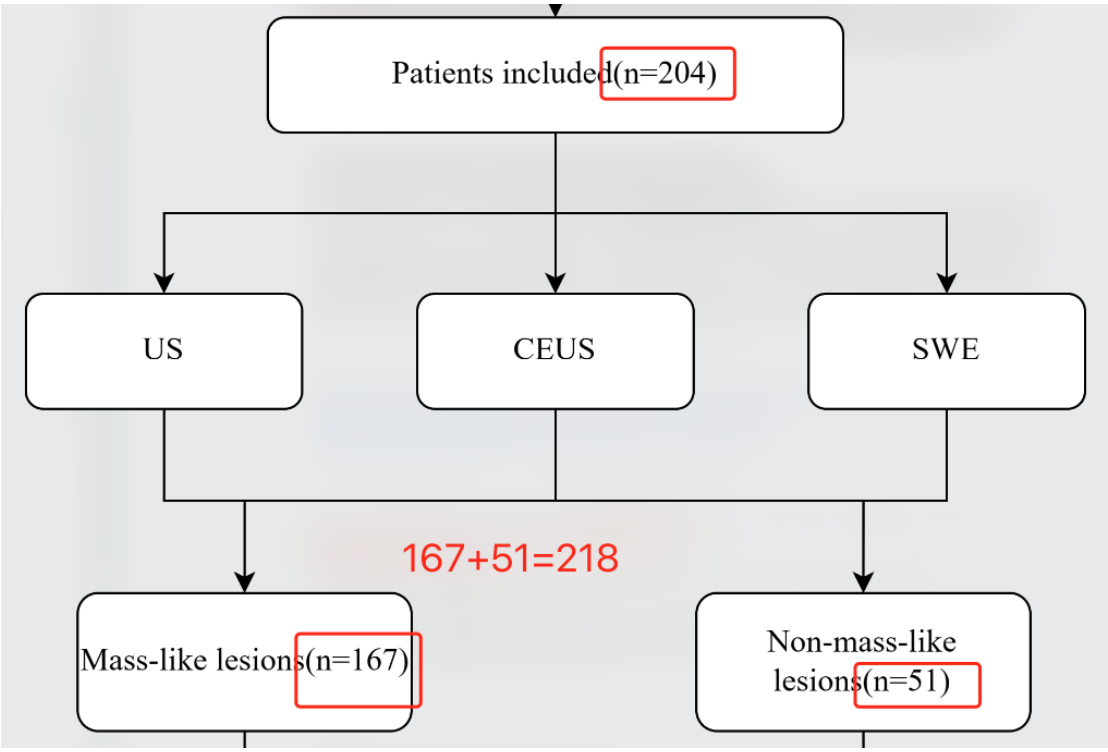
15 From January to August 2021, 382 patients (417 breast lesions) underwent conventional

16 US for the first time, followed by CEUS and SWE. Of these, a total of 204 female

382 patients (417 breast lesions) underwent B-mode US, CEUS, and SWE (2021.06-2021.8)

A: This section has been modified.

c) Please double-check the **accuracy of the data** in figure 1, especially the numbers we pointed out below: (Please note that the number is 218 in the main text)



A: This section has been modified.

3. Table 2

Please add the description to the table footnote that how the data are presented in table.

SWE				
Mean	23.900 (16.317, 37.102)	76.795 (54.348, 110.393)	832.000	0.000
Max	35.950 (21.887, 49.790)	104.720 (75.573, 143.230)	778.500	0.000
Min	15.370 (11.015, 29.667)	45.250 (22.875, 71.827)	1537.000	0.000
Ratio	1.600 (1.147, 2.445)	5.115 (3.568, 7.581)	914.500	0.000

A: Comments have been added below the table.

4. Table 3

Please add the description to the table footnote that how the data are presented in table.

Mean	18.60 (13.73, 33.30)	89.43 (39.50, 129.87)		0.000
Max	12.37 (7.70, 32.06)	63.61 (19.93, 87.91)		0.000
Min	1.47 (1.10, 2.88)	4.47 (3.02, 6.85)		0.000
Ratio	22.00 (15.88, 66.08)	118.5 (56.44, 174.24)		0.000

A: Comments have been added below the table.

5. References/Citations

a) Please check if the author's name matches with the citation.

> According to Jiang et al., DCIS or micro-invasive DCIS is the main pathological type of NML (89.5%) (29), which is higher than that in our study (85.7%). The size of

A: This section has been modified.

b) Please double-check if more studies should be cited as you mentioned "studies". OR use "study" rather than "studies".

> was higher (95.2%), while the specificity was lower (79.3%). Previous studies have shown that fibrocystic changes with calcification and sclerosing adenosis can become false-positive NML (40). The sensitivity and specificity of US+CEUS+SWE in the ML

A: This section has been modified.

c) If available, please update your reference list by including related literatures published in 2022. Some of the references are outdated.

A: References 2, 6, 27 have been updated. Due to the lack of studies on non-mass breast lesions, some articles could not be replaced.